

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: COOKS POND	Lake Area (ha):	95.06
Town: BROOKFIELD	Maximum depth (m):	9.4
County: Carroll	Mean depth (m):	6.3
River Basin: Coastal	Volume (m ³):	6002000
Latitude: 43°33'50" N	Relative depth:	0.9
Longitude: 71°05'17" W	Shore configuration:	1.48
Elevation (ft): 652	Areal water load (m/yr):	2.65
Shore length (m): 5100	Flushing rate (yr ⁻¹):	0.40
Watershed area (ha): 518.0	P retention coeff.:	0.77
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

29 February 2000

19 July 1999

DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 90%	SPHAEROCYSTIS 15%
	#2		GLOEOCYSTIS 15%
	#3		DINOBRYON 12%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			1.80
DOM. ZOOPLANKTON (% TOTAL)	#1	NAUPLIUS LARVA 58%	ASPLANCHNA 25%
	#2		KERATELLA 19%
	#3		NAUPLIUS LARVA 19%
ROTIFERS/LITER		10	120
MICROCRUSTACEA/LITER		23	99
ZOOPLANKTON ABUNDANCE (#/L)		33	229
VASCULAR PLANT ABUNDANCE			Sparse
SECCHI DISK TRANSPARENCY (m)			8.0
BOTTOM DISSOLVED OXYGEN (mg/L)		8.4	11.1
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): None

CHEMICAL:

Lake: COOKS POND

Town: BROOKFIELD

	29 February 2000		19 July 1999		
DEPTH (m)	3.0	6.0	3.5		7.0
pH (units)	6.6	6.6	6.8		6.8
A.N.C. (Alkalinity)	8.1	8.4	7.1		6.9
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	< 0.10	< 0.10	0.30		0.20
TOTAL PHOSPHORUS	0.008	0.007	0.007		<0.001
CONDUCTIVITY (μ mhos/cm)	39.2	38.8	36.9		37.0
APPARENT COLOR (cpu)	< 5	< 5	< 5		< 5
MAGNESIUM			0.54		
CALCIUM			3.8		
SODIUM			2.2		
POTASSIUM			0.43		
CHLORIDE	3	3	3		< 2
SULFATE	4	5	3		3
TN : TP			43		
CALCITE SATURATION INDEX			3.1		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1999

D.O. S.D. PLANT CHL TOTAL CLASS

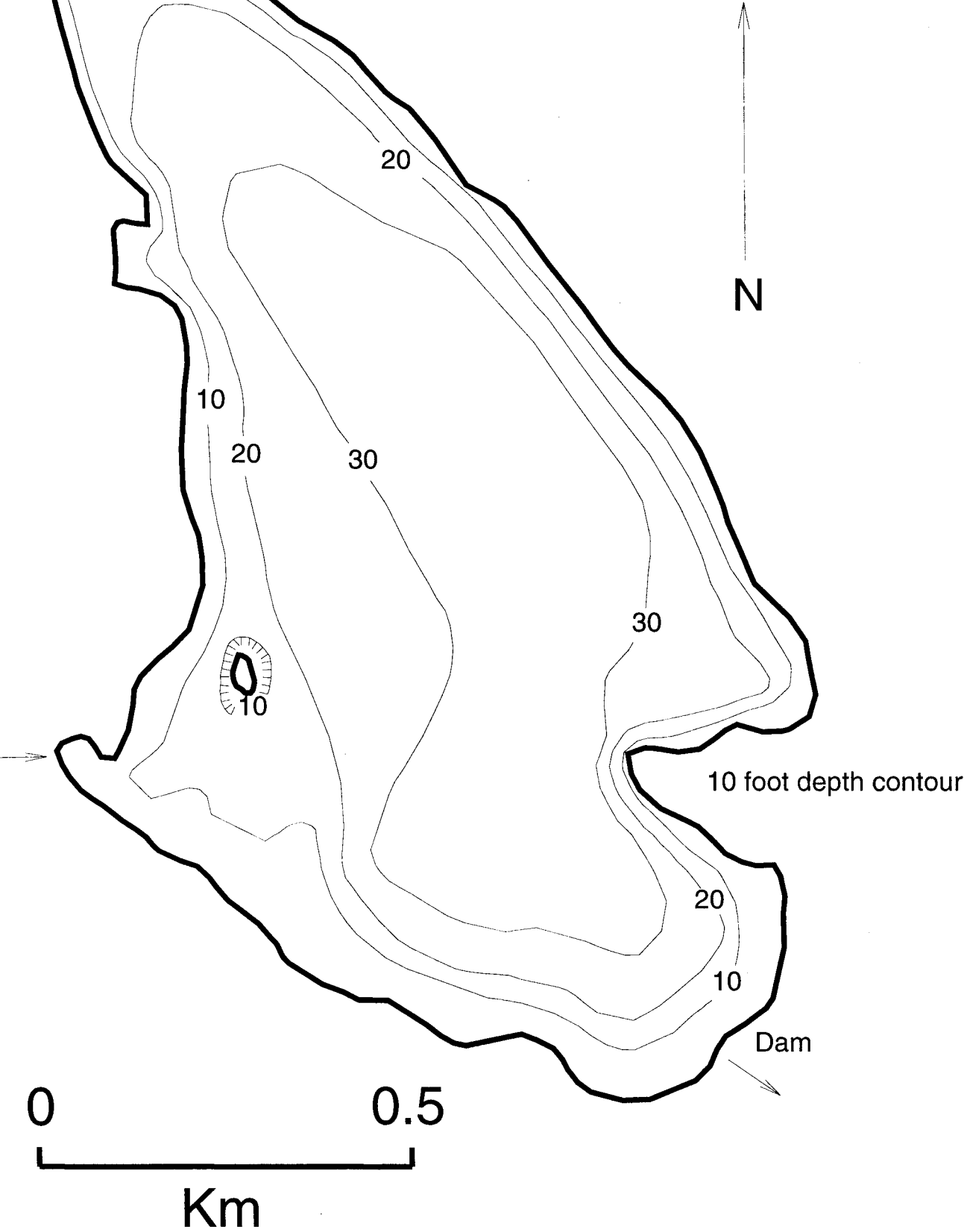
**	0	0	0	0	Oligo.
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COMMENTS:

1. Also known as Kingswood Lake.
2. Previously surveyed and classified in 1981. The pond received zero trophic points in both years.
3. The outlet of the pond has been sampled twice a year since 1983 as part of the acid trend monitoring program. Water quality has been stable over the period.
4. This is a crystal clear, circum-neutral pond with low nutrient and productivity values.
5. Despite a 9 meter depth the lake was not stratified. The very clear water allows sunlight to penetrate to the bottom.
6. Good variety of summer phytoplankton; 19 different genera were observed and there was no strong dominant.

Cooks Pond

Brookfield



FIELD DATA SHEET

LAKE: COOKS POND	TOWN: BROOKFIELD
DATE: 07/19/1999	WEATHER: MOSTLY CLOUDY; RAIN

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[illegible]

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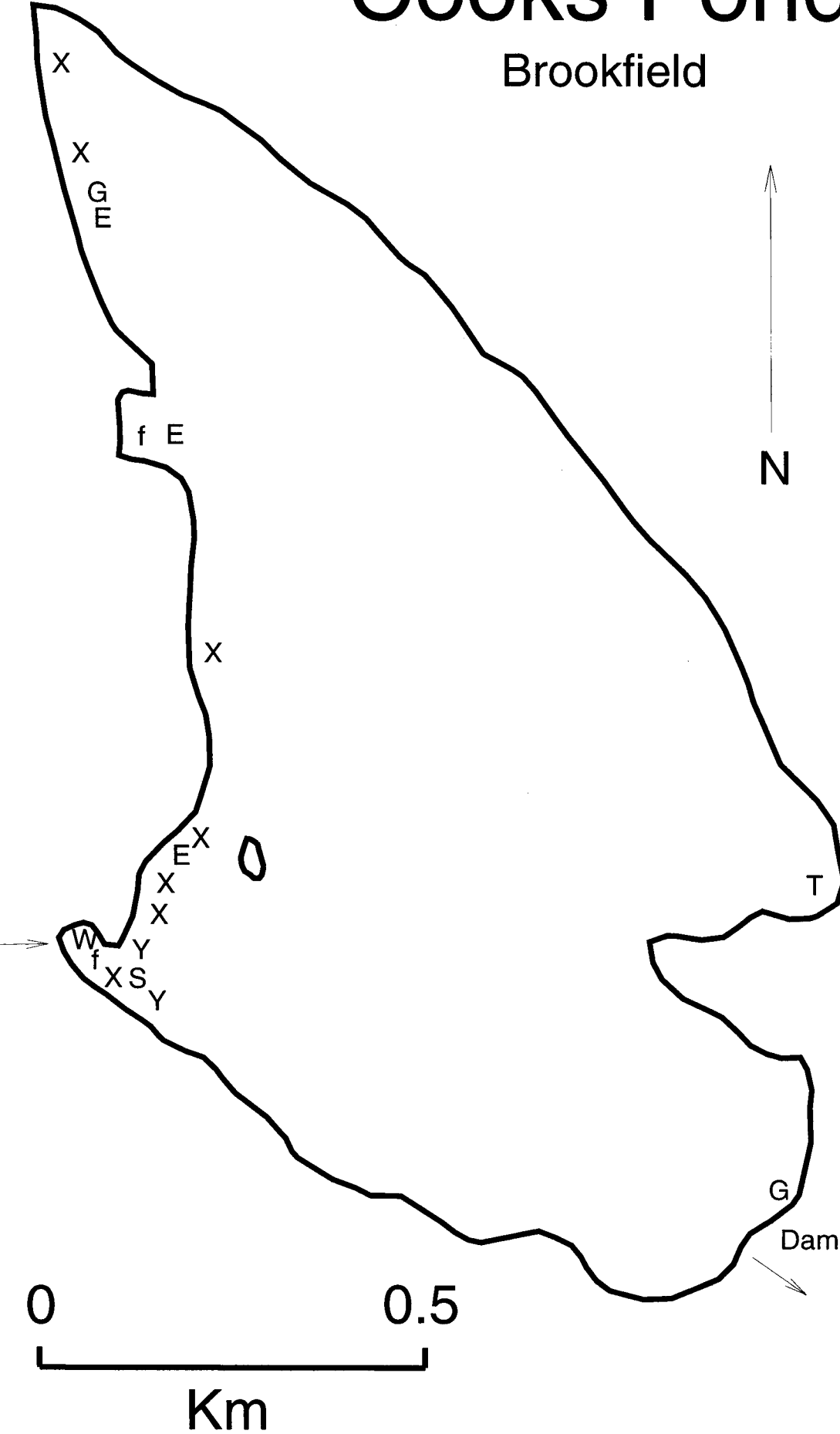
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*Dissolved oxygen values are in mg/L

Cooks Pond

Brookfield



[illegible]